

INSTRUMENT APPROACH PROCEDURE CHARTS

# IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR take-off minimums other than standard, are listed below, Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned another DP or radar vector by ATC, this procedure may be flown to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: FAR 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME

27 OCT 2005 to 24 NOV 2005

# TAKE-OFF MINIMUMS AUBURN-LEWISTON, ME

AUBURN-LEWISTON MUNI

TAKE-OFF MINIMUMS: Rwy 17,500-21/4 or std. with a min. climb of 266' per NM to 900. Rwy 22, std. with a min. climb of 312' per NM to 1500, or 1100-21/2 for climb in visual conditions.

DEPARTURE PROCEDURE: Rwy 17, climb via heading 165° to 900 before turning northeast. Rwy 22, climb to 1500 direct LE LOM, Cross LE LOM at 1500 or above before turning southwest. For climb in visual conditions cross Auburn/Lewiston Muni at or above 1300.

NOTE: Rwy 4, multiple trees beginning 297' from departure end of runway, 78' right of centerline, up to 90' AGL/386' MSL. Multiple trees beginning 331' from departure end of runway, 277' left of centerline, up to 86' AGL/323' MSL. Abandoned aircraft 73' from departure end of runway, 478' right of centerline, 19' AGL/289' MSL. Abandoned aircraft 36' from departure end of runway, 451' right of centerline, 18' AGL/288' MSL. Pole 1487' from departure end of runway, 348' right of centerline, 51' AGL/314' MSL. Pole 101' from departure end of runway, 387' left of centerline, 37' AGL/277' MSL. Fence 132' from departure end of runway, 306' right of centerline, 11' AGL/267' MSL. Rwy 17, tree 1209' from departure end of runway, 390' right of centerline, 72' AGL/364' MSL. Tree 909' from departure end of runway. 336' right of centerline, 51' AGL/350' MSL. Tree 1819' from departure end of runway, 169' left of centerline, 92' AGL/371'MSL. Tree 1053' from departure end of runway, 252' left of centerline, 60' AGL/336' MSL. Tree 575' from departure end of runway, 175' left of centerline, NAME

### TAKE-OFF MINIMUMS

# AUBURN-LEWISTON MUNI(CONT.)

39'AGL/322' MSL. Tree 881' from departure end of runway, 110' right of centerline, 35' AGL/327' MSL. Terrain 159' from departure end of runway, 487' right of centerline, 0' AGL/302' MSL. Tree 1.9 NM from departure end of runway, 247' left of centerline, 129' AGL/576' MSL. Terrain 276' from departure end of runway, 302' right of centerline, 0' AGL/299' MSL. Road 531' from departure end of runway, 156' left of centerline, 0' AGL/305' MSL. Terrain 533' from departure end of runway, 463' right of centerline, 0' AGL/302' MSL. Terrain 18' from departure end of runway, 140' right of centerline, 0' AGL/289' MSL. Tower 1.7 NM from departure end of runway, 4211' left of centerline, 193' AGL/752' MSL. Rwy 22, tree 4322' from departure end of runway, 1403' right of centerline, 87' AGL/439' MSL. Tree 4970' from departure end of runway, 616' left of centerline, 62' AGL/414' MSL. Tree 5547' from departure end of runway, 633' right of centerline, 86' AGL/428' MSL. Tree 5242' from departure end of runway, 1108' right of centerline, 51' AGL/419' MSL Tree 3040' from departure end of runway, 993' right of centerline, 74' AGL/363' MSL. Ground 4784' from departure end of runway, 88' right of centerline, 0' AGL/ 404' MSL. Ground 3902' from departure end of runway, 811' right of centlerine, 0' AGL/375' MSL. Tree 3189' from departure end of runway, 500' right of centerline, 73' AGL/352' MSL. Rwy 35, tree 1877' from departure end of runway, 357' left of centerline, 104' AGL/344' MSL. Tree 870' from departure end of runway, 380' right of centerline.

TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES





### AUBURN-LEWISTON MUNI(CONT.)

72'AGL/312' MSL. Tree 1146' from departure end of runway, 378' left of centerline, 77' AGL/317' MSL. Tree 1520' from departure end of runway, 170' right of centerline, 62' AGL/302' MSL.

### AUGUSTA, ME

### AUGUSTA STATE

TAKE-OFF MINIMUMS: Rwys 8,35,300-1. Rwy 26, 400-1 or std. with a min. climb of 250' per NM to 700.

### BAR HARBOR, ME

### HANCOCK COUNTY-BAR HARBOR

TAKE-OFF MINIMUMS: Rwys 22, 35, 300-1.
DEPARTURE PROCEDURE: Rwy 17, climbing right turn via heading 220° to 2000 before proceeding on course. Rwy 22, climb runway heading to 1900 before turning eastbound.

### BARRE-MONTPELIER, VT

### EDWARD F. KNAPP STATE

TAKE-OFF MINIMUMS: Rwy 17, 400-1. Rwy 23, 500-2 or std. with a min. climb of 400° per NM to 2600 . DEPARTURE PROCEDURE: Rwy 5, climb runway heading to 2100, then climbing right turn to 3900 direct MPVVOR/DME. Rwy 17, climb direct to MPVVOR/DME, climb in holding pattern (N, right turns, 160° inbound) to 3500 before proceeding on course. Rwy 23, climbing left turn to 3500 direct MPV VOR/DME. Rwy 35, climb runway heading to 1600, then climbing right turn to 3900 direct MPV VOR/DME.

# BEDFORD, MA

# LAURENCE G. HANSCOM FIELD

TAKE-OFF MINIMUMS: **Rwys 11, 29,** 300-1. **Rwy 5,** 300-1 or std. with a min. climb of 210' per NM to 400. **Rwy 23,** 300-1 or std. with a min. climb of 320' per NM to 460.

DEPARTURE PROCEDURE: **Rwy 11**, climb runway heading to 600 before turning.

# BELFAST, ME

**BELFAST MUNI** 

TAKE-OFF MINIMUMS: **Rwy 33**, 300-1 or std. with a min. climb of 270' per NM to 600.

## BENNINGTON, VT

# WILLIAM H. MORSE STATE

TAKE-OFF MINIMUMS: **Rwy 13**, 2200-3, restricted to CAT A and B only, CAT C NA. **Rwy 31**, 500-2 or std. with a min. climb of 240' per NM to 1400.

DEPARTURE PROCEDURE: Rwy 13, climbing left turn direct to CAM VORTAC, continue climb in hold to 3500 before proceeding on course. Rwy 31, climbing right turn direct CAM VORTAC continue climb in hold to 3500 before proceeding on course.

# BERLIN, NH

#### BERLIN MUNI

TAKE-OFF MINIMUMS: **Rwys 18, 36,** 1000-2. DEPARTURE PROCEDURE: **Rwys 18, 36,** climb visually over the airport to 2100, continue climb to 3000 via BML R-192, then climbing right turn to 4400 direct BML VOR/DME and hold. Climb in holding pattern (N, left turns, 192° inbound) to MEA before proceeding on course.

### BEVERLY, MA

### BEVERLY MUNI

NOTE: Rwy 9, multiple trees beginning 82' from departure end of runway, 50' left of centerline, up to 114' AGL/232' MSL. Tree 258' from departure end of runway, 47' right of centerline, 87' AGL/192' MSL. Rwy 16, multiple trees beginning 286' from departure end of runway, 213' left of centerline, up to 80' AGL/148' MSL. Trees, stack and obstruction light on buildings beginning 121' from departure end of runway, 4' right of centerline up to 90' AGL/194' MSL. Rwy 27, multiple trees and antenna beginning 8' from dparture end of runway, 144' left of centerline, up to 98' AGL/217' MSL, multiple trees beginning 42' from departure end of runway, 84' right of centerline up to 97' AGL/160' MSL. Rwy 34, multiple trees beginning 437' from departure end of runway, 5' left of centerline, 91' AGL/188' MSL. Multiple trees 509' from departure end of runway, 1' right of centerline, 80' AGL/174'MSL.

## **BLOCK ISLAND, RI**

# BLOCK ISLAND STATE

TAKE-OFF MINIMUMS: **Rwy 28**, 300-1.
DEPARTURE PROCEDURE: **Rwy 28**, climb runway heading at 250' per NM to 400 feet before turning.

### **BOSTON, MA**

### GENERAL EDWARD LAWRENCE LOGAN INTL

TAKE-OFF MINIMUMS: Rwy 4L, 300-1 or std. with a min. climb of 340' per NM to 300. Rwy 4R, 300-1 or std. with a min. climb of 320' per NM to 300. Rwy 9, 300-1 or std. with a min. climb of 230' per NM to 300. Rwy 22L, 300-1 or std. when tower reports no tall vessels in departure area. Rwy 22R, 300-1 or std. with a min. climb of 220' per NM to 300. Rwy 27, 900-1 or std. with a min. climb of 440' per NM to 1100. Rwy 33L, 500-1 or std. with a min. climb of 250' per NM to 500.

DEPARTURE PROCEDURE: Rwys 22L, 22R, climb runway heading to 700 before turning right. Rwy 33L, climb runway heading to 700 before turning left.

## BRIDGEPORT, CT

IGOR I. SIKORSKY MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 29**, 600-2 or std. with a min. climb of 280' per NM to 700.

NOTE: Rwy 6, cross departure end of runway at or above 34' AGL/42' MSL. Rwy 11, 26' AGL/41' MSL road/ vehicle 207' from departure end of runway. Cross departure end of runway at or above 35' AGL/43' MSL. Rwy 24, cross departure end of runway at or above 23' AGL/30' MSL. Rwy 29, cross departure end of runway at or above 35' AGL/45' MSL.







# **BRUNSWICK NAS, ME (KNHZ)**

BRUNSWICK, ME

RWY 1L, CAUTION: Cross DER at or above 35' AGL/110' MSL.

RWY 1R, CAUTION: Cross DER at or above 20' AGL/94' MSL.

# **BURLINGTON, VT**

### **BURLINGTON INTL**

TAKE-OFF MINIMUMS: **Rwy 15**, 1000-2 or std. with a min. climb of 260' per NM to 1600. **Rwy 19**, 700-2 or std. with a min. climb of 220' per NM to 1200.

DEPARTURE PROCEDURE: Rwy 1, climb runway heading to 800, then climbing left turn direct BTV VORTAC before proceeding on course. Rwys 15,19, climbing right turn direct BTV VORTAC, climb in holding pattern (SW, left turns, 036° inbound) to 4100 before proceeding on course. Rwy 33, climbing left turn direct BTV VORTAC, climb in holding pattern (SW, left turns, 036° inbound) to 4100 before proceeding (SW, left turns, 036° inbound) to 4100 before proceeding

# on course.

CARIBOU MUNI

TAKE-OFF MINIMUMS: Rwys 1, 11, 19, 29, 300-1.

# **CLAREMONT, NH**

### **CLAREMONT MUNI**

TAKE-OFF MINIMUMS: **Rwy 11**, 700-3 or std. with a min. climb of 490' per NM to 1400, or 3100 2½ for climb in visual conditions. **Rwy 29**, 1300-3 or 3100 2½ for climb in visual conditions.

DEPARTURE PROCEDURE: Rwys 11, 29, climb in visual conditions to cross Claremont Muni at or above 3000

NOTE: Rwy11, multiple trees and towers on rising terrain, 1.5 NM from departure end of runway, 3000' right of centerline, and 1.6 NM from departure end of runway, 2660' left of centerline, up to 200' AGL/1143' MSL. Rwy29, multiple trees on rising terrain, 1.1 NM from departure end of runway, 800' left of centerline, and 1.3 NM from departure end of runway, 2000' right of centerline, up to 80' AGL/1044' MSL. Trees and towers 2 NM from departure end of runway on centerline, up to 200' AGL/929' MSL.

### CONCORD.NH

### CONCORD MUNI

TAKE-OFF MINIMUMS: Rwy 12, 500-1 or std. with a min. climb of 350' per NM to 1300. Rwy 17, 300-1 or std. with a min. climb of 220' per NM to 1200. Rwy 30, 800-3 or std. with a min. climb of 260' per NM to 1300. Rwy 35, 300-1 or std. with a min. climb of 320' per NM to 1300.

DEPARTURE PROCEDURE: Rwy12, climb to 900 then climbing right turn to CON VORTAC before proceeding on course. Rwy17, climb to 1200 before turning on course. Rwy 35, climb to 1300 before turning on course.

# DANBURY, CT

#### DANBURY MUNI

TAKE-OFF MINIMUMS: **Rwy 8**, 600-2. **Rwy 17**, 600-1. **Rwy 26**, 500-2. **Rwy 35**, 900-2 or std. with a min. climb of 360' per NM to 1500.

DEPARTURE PROCEDURE: Rwys 8, 17, climb runway heading to 1200 before turning on course. Rwys 26, 35, climb runway heading to 1500 before proceeding on course.

# DANIELSON, CT

#### DANIELSON

TAKE-OFF MINIMUMS: **Rwy 13,** 700-2 or std. with a min. climb of 300' per NM to 1100.

DEPARTURE PROCEDURE: **Rwy 13**, climb to 1100 before turning on course. **Rwy 31**, climb to 1000 feet before turning on course.

# DEXTER, ME

### **DEXTER REGIONAL**

TAKE-OFF MINIMUMS: Rwy7, 25, NA. DEPARTURE PROCEDURE: Rwy16, climb runway heading to 1000 before turning westbound. Rwy34, climb runway heading to 1800 before turning northeastbound.

# EASTPORT, ME

### **EASTPORTMUNI**

TAKE-OFF MINIMUMS: **Rwy 33**, 300-1 or std. with a min. climb of 240' per NM to 300.

## ELIOT, ME

### LITTLEBROOK AIR PARK

NOTE: Rwy 12, house 118'right of departure end of runway, 23' AGL/129' MSL. Brush 200' from departure end of runway, 66' left of centerline, 16' AGL/122' MSL. Trees 345' from departure end of runway, 140' left of centerline, 71' AGL/130' MSL. Rwy 30, trees 220' from departure end of runway, 125' right of centerline, 19' AGL/144' MSL. Brush 100' right of departure end of runway, 20' AGL/159' MSL.

### FITCHBURG, MA

# FITCHBURG MUNI

TAKE-OFF MINIMUMS: Rwys 2, 14, 20, NA-obstacles. Rwy 32, std. with a min. climb of 314' per NM to 1600, or 1500-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 32**, climb via heading 324\* to 2600 before proceeding on course. For climb in visual conditions: cross Fitchburg Muni Airport atorabove 1800.

NOTE: Rwy 32, multiple trees beginning 144' from departure end of runway, 260' left of centerline up to 100' AGL/796' MSL, multiple trees beginning 36' from departure end of runway, 150' right of centerline up to 100' AGL/796' MSL.



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# FRYEBURG, ME

### **EASTERN SLOPES REGIONAL**

TAKE-OFF MINIMUMS: Rwy 14, 400-2 or std. with a min. climb rate of 260' per NM to 1000. Rwy 32, 2200-2 or std. with a min. climb rate of 360' per NM to 2900 day, NA night.

DEPARTURE PROCEDURE: Rwy 14, climb direct SZO NDB to cross ator above 2600 before proceeding on course. Rwy 32, climbing right turn direct SZO NDB to cross at or above 2600 before proceeding on course.

# GARDNER, MA

**GARDNER MUNI** 

TAKE-OFF-MINIMUMS: Rwy 18, 300-1. Rwy 36, 500-2.

### GREAT BARRINGTON, MA

WALTER J. KOLADZA

TAKE-OFF MINIMUMS: Rwy 11, 1200-2 or std. with a min. climb of 440' per NM until passing 2000. Rwy 29, 800-2 or std. with a min. climb of 310' per NM to 1600. DEPARTURE PROCEDURE: Rwys 11, 29, climb runway heading to 2200 before proceeding on course.

### GREENVILLE, ME

GREENVILLE MUNI

TAKE-OFF MINIMUMS: Rwy 3, 1000-3.

Rwys 21, 32, 300-1.

DEPARTURE PROCEDURE: Rwy 3, climbing left turn heading 005° to 3000 before proceeding on course. Rwys 14, 21, climb runway heading to 3000 before proceeding on course. Rwy 32, climbing right turn heading 005° to 3000 before proceeding on course.

# GREENVILLE SEAPLANE BASE

TAKE-OFF MINIMUMS: **North/South**, 600-1. DEPARTURE PROCEDURE: **North**, climb to 3400 via heading 360° before proceeding on course. **South**, climb to 3400 via heading 180° before proceeding on course.

# GROTON (NEW LONDON), CT

**GROTON-NEW LONDON** 

TAKE-OFF MINIMUMS: **Rwy 33,** 300-1 or std. with a min. climb of 350' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 33**, climb via heading 329° to 500, then climbing right turn to intercept GON VOR/DME R-335 to 2000 before proceeding on course.

NOTE: Rwy 5, road, multiple trees, obstruction lights and towers beginning 215' from departure end of runway, 500' left of centerline, up to 70' AGL/91' MSL. Tree 1.3 NM from departure end of runway, 1083' left of centerline, 87' AGL/202' MSL. Rwy 15, bush 53' from departure end of runway, 288' right of centerline, 8' AGL/11' MSL. Multiple trees beginning 1769' from departure end of runway, 276' left of centerline, up to 30' AGL/156' MSL. Rwy 23, bush 570' from departure end of runway, 490' right of centerline, 12' AGL/21' MSL. Rwy 33, railroad, obstruction lights and trees beginning 160' from departure end of runway, crossing centerline, up to 20' AGL/88' MSL. Multiple trees, obstruction lights and task beginning 4475' from departure end of runway, 1397' left of centerline, up to 55' AGL/226' MSL.

# HARTFORD, CT

HARTFORD-BRAINARD

TAKE-OFF MINIMUMS: Rwys 11,29, NA DEPARTURE PROCEDURE: Rwy 2, climb runway

heading to 1000 before proceeding on course. **Rwy 20**, climb to 1900 via heading 175° before proceeding on course. **NOTE: Rwy 2**, 100' AGL treeline 169' from departure end

of runway, right of centerline to 2545' from departure end of runway, 191' left of centerline. **Rwy 20**, 100' AGL treeline 1290' from departure end of runway, 497' right of centerline to 2503' from departure end of runway, 32' left of centerline.

# HIGHGATE, VT

## FRANKLIN COUNTY STATE

NOTE: Rwy 19, trees 979' from departure end of runway, 604' right of centerline, 77' AGL/294' MSL. Trees 1008' from departure end of runway, 600' right of centerline, 83' AGL/300' MSL.

# HOPEDALE, MA

HOPEDALE INDUSTRIAL PARK

TAKE-OFF MINIMUMS: **Rwy 18**, 300-1 or std. with a min. climb of 320' per NM to 900. **Rwy 36**, 600-1 or std. with a min. climb of 280' per NM to 1100.

DEPARTURE PROCEDURE: **Rwy 18**, climb runway heading to 900 before turning on course. **Rwy 36**, climb runway heading to 1100 before turning on course.

# HOULTON, ME

**HOULTON INTL** 

TAKE-OFF MINIMUMS: **Rwys 1, 5,** 300-1. **Rwy 19,** 500-1. **Rwy 23,** 300-1 or std. with a min. climb of 220' per NM to 700.

# HYANNIS, MA

BARNSTABLE MUNI-BOARDMAN/POLANDO FIELD

TAKE-OFF MINIMUMS: **Rwy 33**, 300-1 or std. with a min. climb of 240' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 24, 33,** climb runway heading to 700 before proceeding on course.

# JAFFREY, NH

JAFFREY AIRPORT-SILVER RANCH

TAKE-OFF MINIMUMS: Rwys16, 34, 500-1.
DEPARTURE PROCEDURE: Rwy16, climb to 3000 direct to GDM VORTAC before proceeding on course.

**Rwy 34,** climbing right turn to 3000 direct to GDM VORTAC before proceeding on course.



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# KEENE, NH

#### **DILLANT-HOPKINS**

TAKE-OFF MINIMUMS: **Rwy 2**, 1200-2. **Rwy 14**, 2200-2 or std. with a min. climb of 450' per NM to 2500. **Rwy 20**, 1000-2 or std. with a min. climb of 320' per NM to 1700. **Rwy 32**, 1600-2.

DEPARTURE PROCEDURE: Rwy 2, climb runway heading to 2100, then climbing left turn to assigned altitude direct EEN VORTAC before proceeding on course. Rwy 14, climb runway heading to 2500, then climbing right turn to assigned altitude direct EEN VORTAC before proceeding on course. Rwy 20, climb direct EEN VORTAC until passing 3000, if not at 3000 or above at EEN VORTAC climb in EEN holding pattern; (NE, right turns, 215° inbound) before proceeding on course. Rwy 32, climbing right turn heading 350° to 2100, then climbing left turn to assigned altitude direct EEN VORTAC before proceeding on course.

NOTE: **Rwy 2**,81' AGL trees 400' from departure end of runway and 500' right of centerline. **Rwy 32**,89' AGL trees 800' from departure end of runway and 600' right of centerline.

## LACONIA, NH

### LACONIA MUNI

TAKE-OFF MINIMUMS: Rwy 8, 600-1. Rwy 26, 300-1. DEPARTURE PROCEDURE: Rwy 8, climbing left turn to 3800 direct LC LOM, climb in holding pattern (W, left turns, 083° inbound) to MEA before proceeding on course. Rwy 26, climb to 3800 direct LC LOM climb in holding pattern (W, left turns, 083° inbound) to MEA before proceeding on course.

# LAWRENCE, MA

# LAWRENCE MUNI

TAKE-OFF MINIMUMS: Rwy 5, 300-1 or std. with a min. climb of 290' per NM to 400. Rwy 14, 300-1 or std. with a min. climb of 430' per NM to 500. Rwy 23, 300-1 or std. with a min. climb of 240' per NM to 400. Rwy 32, 300-1.

## LEBANON, NH

# LEBANON MUNI

TAKE-OFF MINIMUMS: Rwys 7,18, 1000-2.

Rwy 25, 1300-2 or 300-1 with a min. climb of 440' per NM to 2000. Rwy 36, 1200-2 or std. with a min. climb of 280' per NM to 2400.

DEPARTURE PROCEDURE: Rwys 7,18, climb visually over airport to cross airport at or above 1500 then proceed on course. Rwy 25, climb runway heading to 2000 before proceeding on course. Rwy 36, climb runway heading to 2400 before proceeding on course.

# LINCOLN, ME

LINCOLN REGIONAL

TAKE-OFF MINIMUMS: Rwy 17, 800-2. Rwy 35, 300-1.

# LYNDONVILLE, VT

### CALEDONIA COUNTY

TAKE-OFF MINIMUMS: Rwy 2, 400-1 and a min. climb of 260' per NM to 3000. Rwy 20, 600-1 or std. with a min. climb of 260' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 2**, climb to 1700 via 023° bearing from LLX NDB, then climbing left turn to 3000 direct LLX NDB before proceeding on course. **Rwy 20**, climb direct LLX NDB, then continue climb via 203° bearing from LLX NDB to 2700 before proceeding on course.

# MACHIAS, ME

### MACHIAS VALLEY

TAKE-OFF MINIMUMS: **Rwy 18**, 400-2 or std. with a min. climb of 350' per NM to 700. **Rwy 36**, 400-2 or std. with a min. climb of 370' per NM to 600.

NOTE: Rwy18, numerous terrain/trees right and left of runway centerfilme within 8000' from departure end of runway, up to 100' AGL/479' MSL. Rwy36, numerous terrain/trees left and right of runway centerline within 15000' of departure end of runway, up to 100' AGL/439' MSL. Tower 7929' from departure end of runway 883' left of centerline, 85' AGL/403' MSL.

# MANCHESTER, NH

# MANCHESTER

TAKE-OFF MINIMUMS: Rwy 6, 300-1 or std. with a min. climb of 320' per NM to 700. Rwy 17, 300-2 or std. with a min. climb of 220' per NM to 700. Rwy 24, 400-1 or std. with a min. climb of 270' per NM to 700. Rwy 35, 300-1 or std. with a min. climb of 270' per NM to 700.

DEPARTURE PROCEDURE: Rwy 24, climb runway heading to 800 before turning westbound, or, use MANCHESTER DEPARTURE. Rwy 35, climb runway heading to 1200 before turning westbound, or, use MANCHESTER DEPARTURE.

# MANSFIELD, MA

#### MANSFIELD MUNI

TAKE-OFF MINIMUMS: Rwy 32, 300-1. Rwys 4,22, NA.

# MERIDEN, CT

# MERIDEN MARKHAM MUNI

TAKE-OFF MINIMUMS: Rwy 36, 1200-1 or std. with a min. climb of 420' per NM to 1400.

DEPARTURE PROCEDURE: **Rwy 18**, climb runway heading to 700 before proceeding westor northbound. **Rwy 36**, climbing left turn to 1800 via 325° bearing from MMK NDB before proceeding on course.

# MILLINOCKET, ME

# MILLINOCKET MUNI

TAKE-OFF MINIMUMS: **Rwy 29**, 700-1 or std. with a min. climb of 270' per NM to 1300. **Rwy 34**, 700-1 or std. with a min. climb of 290' per NM to 1300.

## MONTAGUE, MA

**TURNERS FALLS** 

TAKE-OFF MINIMUMS: Rwy 16, 1200-1. Rwy 34, 1300-1 or std. with a min. climb rate of 370' per NM to 1900.







# MORRISVILLE, VT

### MORRISVILLE-STOWE STATE

TAKE-OFF MINIMUMS: Rwy 1, 2000-2 or std. with a min. climb of 300° per NM to 2400. Rwy 19, 2100-3. DEPARTURE PROCEDURE: Rwy 1, climbing right turn direct JRV NDB, continue climb to 2400 via the JRV bearing 050°, then climbing right turn direct to JRV NDB, continue climb in hold (NE, left turns, 230° inbound) to 3500 before proceeding on course. Rwy 19, climbing right turn direct JRV NDB and climb in the hold (NE, left turns, 230° inbound) to 3500 before proceeding on course.

NOTE: TAKE-OFF MINIMUMS restricted to CAT A & B aircraft only.

### NANTUCKET. MA

### NANTUCKET MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 12**, 700-1 or std. with a min. climb of 330' per NM to 800.

DEPARTURE PROCEDURE: Rwys 6,12,15,24,30,33, climb runway heading to 800 before proceeding on course

NOTE: Rwy 33, 70' AGL ant. on building 954' from departure end of runway, 585' right of centerline.

# NASHUA, NH

# BOIRE FIELD

TAKE-OFF MINIMUMS: Rwy 14, 300-1.
DEPARTURE PROCEDURE: Rwy 14, climb runway heading at 250' per NM to 400 before turning on course.

### NEW BEDFORD, MA

### NEW BEDFORD REGIONAL

TAKE-OFF MINIMUMS: **Rwy 14**, 300-1 or std. with a min. climb of 280' per NM to300. **Rwy 32**, 300-1 or std. with a min. climb of 270' per NM to 300.

# **NEW HAVEN, CT**

### TWEED-NEW HAVEN

TAKE-OFF MINIMUMS: Rwy 2,300-1. Rwy 14,300-1 or std. with a min. climb of 340' per NM until 200. Rwy 20, 300-1 or std. with a min. climb of 240' per NM until 100. Rwy 32,400-1 or std. with a min. climb of 420' per NM until 500.

# NEWPORT, RI

# **NEWPORT STATE**

TAKE-OFF MINIMUMS: **Rwy 4**, 300-1 or std. with a min. climb of 300' per NM to 1400.

DEPARTURE PROCEDURE: **Rwy 4**, climb runway heading to 1400 before proceeding on course.

# **NEWPORT, VT**

### **NEWPORT STATE**

TAKE-OFF MINIMUMS: **Rwy 5**, 1000-3 or std. with a min. climb of 500' per NM to 2900. **Rwy 23**, 1000-3 or std. with a min. climb of 410' per NM to 2900.

DEPARTURE PROCEDURE: Rwy 5, climb direct EFK NDB. Climb in hold to 5000 before proceeding on course. Rwys 18,23, climb to 1400, then climbing left turn direct EFK NDB to cross EFK NDB at or above 2900. Climb in hold to 5000 before proceeding on course. Rwy 36, climb to 1400, then climbing right turn direct EFK NDB. Climb in hold to 5000 before proceeding on course.

# NORRIDGEWOCK, ME

# CENTRAL MAINE AIRPORT OF NORRIDGEWOCK

TAKE-OFF MINIMUMS: **Rwy 3**, 300-1. **Rwy 15**, 300-1 or std. with a min. climb rate of 300' until passing 700. **Rwy 21**, 1100-2 or std. with a min. climb rate of 210' until passing 1700.

DEPARTURE PROCEDURE: **Rwy 21**, climb runway heading to 800 before turning southeast. **Rwy 33**, climbing right turn direct AUG VOR/DME before proceeding on course.

# NORTH KINGSTOWN, RI

# **QUONSET STATE**

TAKE-OFF MINIMUMS: **Rwy 5**, 300-1 or std. with a min. climb of 320' per NM to 300. **Rwy 16**, 300-1 or std. with a min. climb of 250' per NM to 300.

# NORTHAMPTON, MA

### NORTHAMPTON

TAKE-OFF MINIMUMS: Rwy 14, 1300-2. Rwy 32, 1700-2 or std. with a min. climb of 330' per NMt 0200. DEPARTURE PROCEDURE: Rwy 14, climb runway heading to 1300 before proceeding on course. Rwy 32, climb runway heading to 2000 before proceeding on course. NOTE: Rwy 14, 80' AGL trees 7510' from departure end of runway, 2242' right of centerline.

# NORWOOD, MA

### NORWOOD MEMORIAL

TAKE-OFF MINIMUMS: Rwy 10, 900-2 or std. with a min. climb of 360' per NM to 1000. Rwy 28, 300-1. Rwy 35, 1300-2 or std. with a min. climb of 300' per NM to 1800. DEPARTURE PROCEDURE: Rwy 28, climb runway heading to 1700 before turning northbound. NOTE: Rwy 17, 59' AGL trees 172' from departure end, 374'

NOTE: Rwy 17,59' AGL trees 172' from departure end, 374 left of centerline. Rwy 28, 70' AGL trees 351' from departure end, 251' left of centerline.

# ORANGE, MA

# **ORANGE MUNI**

TAKE-OFF MINIMUMS: Rwys 1,14,19,32,800-1.
DEPARTURE PROCEDURE: Depart over the airport at 1300, climb to 3500 direct GDM VORTAC, depart GDM VORTAC at assigned enroute altitude.





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# OXFORD, CT

### WATERBURY-OXFORD

NOTE: Rwy 18, multiple trees and antennas beginning 1000 from departure end of runway, 200 left of centerline, up to 100' AGL/777' MSL. Rwy 36, multiple trees beginning 140' from departure end of runway, 265' right of centerline, up to 100' AGL/881' MSL. Multiple trees beginning 110' from departure end of runway, 450' left of centerline, up to 100' AGL/741' MSL.

# OXFORD, ME

### OXFORD COUNTY REGIONAL

DEPARTURE PROCEDURE: **Rwy 15**, turn right direct LEWIE LOM until passing 2200 before proceeding on course. **Rwy 33**, climb runway heading to 1200, then left turn direct LEWIE LOM until passing 2300 before proceeding on course.

# PAWTUCKET, RI

NORTH CENTRAL STATE

TAKE-OFF MINIMUMS: Rwys 15, 33, 300-1.

# PITTSFIELD, MA

#### PITTSFIELD MUNI

TAKE-OFF MINIMUMS: Rwys 14, 32, NA.

**Rwy 8**, 1100-2 or std. with a min. climb of 270' per NM to 2500. **Rwy 26**, 800-2 or std. with a min. climb of 360' per NM to 2100.

DEPARTURE PROCEDURE: **Rwy 8**, climb runway heading to 2000, then climbing right turn via CTR R-331 to 3000 before proceeding on course.

Rwy 26, climb runway heading to 2400 before proceeding on course.

NOTE: Rwy 8, 120' AGL tree 370' from departure end of runway, 533' right of centerline.

## PITTSFIELD, ME

PITTSFIELD MUNI

TAKE-OFF MINIMUMS: Rwvs 1.19. 300-1.

# PLYMOUTH, MA

# PLYMOUTH MUNI

TAKE-OFF MINIMUMS: **Rwy 6**, 300-1 orstd. with a min. climb of 390' per NM to 500. **Rwys 15**, 300-1. **Rwy 24**, 300-1 or std. with a min. climb of 220' per NM to 400. **Rwy 33**, 300-1 or std. with a min. climb of 210' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 6**, climb runway heading to 900 before proceeding on course.

# PORTLAND, ME

### PORTLAND INTL JETPORT

runway, 600' right of centerline.

TAKE-OFF MINIMUMS: Rwy 11, 300-1 or std. with a min. climb of 250' per NM to 500. Rwy 18, 300-1. Rwy 36, 400-1 or std. with a min. climb of 300' per NM to 500.

DEPARTURE PROCEDURE: Rwys11, 18, 29, 36, climb runway heading to 500 before proceeding on course. NOTE: Rwy18, 151' tower 1000' from departure end of

## PRESQUEISLE, ME

# NORTHERN MAINE REGIONAL AIRPORT AT PRESQUE ISLE

TAKE-OFF MINIMUMS: **Rwy 1**,300-1 or std. with a min. climb of 360' per NM to 900. **Rwy 10**, 300-1 or std. with a min. climb of 250' per NM to 900. **Rwy 19**, 800-1 or std. with a min. climb of 230' per NM to 1600.

DEPARTURE PROCEDURE: Rwy 1, climb runway heading to 1200 before proceeding on course. Rwy 10, climb runway heading to 1700 before proceeding on course.

# PRINCETON, ME

### PRINCETON MUNI

DEPARTURE PROCEDURE: **Rwy 24**, climbing right turn direct PNN VOR/DME before proceeding on course.

### PROVIDENCE, RI

## THEODORE FRANCIS GREEN STATE

TAKE-OFF MINIMUMS: Rwys 5L, 23R, NA-obstacles. Rwys 5R, 16, 23L, std., Rwy 5R, cross departure end of runway at or above 19' AGL/64' MSL. Rwy 16, cross departure end of runway at or above 25' AGL/56' MSL. Rwy 23L, cross departure end of runway at or above 5' AGL/57' MSL. Rwy 34, 800-3 or std. with a min. climb of 260' per NM to 1100. Cross departure end of runway at or above 35' AGL/90' MSL.

NOTE: **Rwy 34**, trees 352' from departure end of runway, 544' right of centerline 42' AGL/115' MSL.

### RANGELEY.ME

### RANGELEY LAKE SEAPLANE BASE

TAKE-OFF MINIMUMS: Rwy 6, NA. Rwy 24, 800-2 or std. with a min. climb of 280' per NM to 2500. DEPARTURE PROCEDURE: Rwy 6, NA. Rwy 24, climb

to 2800 via the 274° bearing to RQM NDB. Climb in RQM NDB holding to 4000 before proceeding on course.

### STEVEN A. BEAN MUNI

TAKE-OFF MINIMUMS: Rwys14, 32, 600-2.
DEPARTURE PROCEDURE: Rwy14, climbing right turn direct RQM NDB to cross at or above 4000 before proceeding on course. Rwy32, climbing left turn direct RQM NDB to cross at or above 4000 before proceeding on course.







# ROCHESTER, NH

#### SKYHAVEN

DEPARTURE PROCEDURE: **Rwy 33**, climb runway heading to 800, then climbing left turn to 3000 via heading 270° and CON VORTAC R-095 before proceeding on course.

# ROCKLAND, ME

### KNOX COUNTY REGIONAL

TAKE-OFF MINIMUMS: **Rwy 3**, 300-1 orstd. with a min. climb of 270' per NM to 2000, or 1100-2½ for climb in visual conditions. **Rwy 31**, std. with a min. climb of 300' per NM to 1300, or 1100-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: Rwys 3, 31, for climb in visual conditions: cross Knox County Regional at or above 1000' MSL before proceeding on course.

NOTE: Rwy 3, multiple trees, bushes, obstruction lights and towers beginning 108' from departure end of runway, 433' left of centerline, up to 146' AGL/206' MSL. Rwy 13, multiple trees, antennas, and light poles beginning 475' from departure end of runway, 548' left of centerline, up to 80' AGL/155' MSL. Rwy 21, multiple trees beginning 284' from departure end of runway, 255' left of centerline, up to 65' AGL/110' MSL. Rwy 31, multiple trees beginning 2025' from departure end of runway, 895' right of centerline, up to 74' AGL/115' MSL.

### RUTLAND, VT

### **RUTLAND STATE**

TAKE-OFF MINIMUMS: Rwy 1, 2300-3 or std. with a min. climb of 270' per NM to 3500. Rwy 13, NA. Rwy 19, 2800-3 or std. with a min. climb of 510' per NM to 4500. Rwy 31, 2900-3 or std. with a min. climb of 420' per NM to 4500.

DEPARTURE PROCEDURE: Rwy 1, climb direct DYO NDB, cross DYO NDB at or above 6000, if not at 6000, depart DYO NDB on bearing 325° to 6000 before proceeding on course. Rwys 19, climbing right turn direct DYO NDB, cross DYO NDB at or above 6000, if not at 6000, depart DYO NDB on bearing 325° to 6000 before proceeding on course. Rwy 31, climbing right turn direct DYO NDB, cross DYO NDB at or above 6000, if not at 6000, depart DYO NDB on bearing 325° to 6000 before proceeding on course.

### SANFORD.ME

### SANFORD REGIONAL

TAKE-OFF MINIMUMS: Rwys 25, 32, 300-1.
DEPARTURE PROCEDURE: Rwy 25, climb straight ahead to 1600 before proceeding on course.
Rwy 32, climbing right turn to heading 045° to 1600 before proceeding on course.

# SOUTHBRIDGE, MA

# SOUTHBRIDGE MUNI

TAKE-OFF MINIMUMS: Rwy 2, 300-1 or std. with a min. climb of 260' per NM until passing 1000. Rwys 10, 28 NA.

# SPRINGFIELD, VT

## HARTNESS STATE (SPRINGFIELD)

TAKE-OFF MINIMUMS: Rwys 5, 11, 29, NA. Rwy 23, 900-3 or std. with a min. climb of 362' per NM to 1700. DEPARTURE PROCEDURE: Rwy 23, climb direct to SXD NDB, climb in SXD NDB holding pattern (SW, rightturns, 050° inbound) to 5000 before proceeding on course.

NOTE: Rwy 23, numerous trees 863' from departure end of runway, 340' right of centerline, 80' AGL/642' MSL.

Trees 1618' from departure end of runway, 900' right of centerline, 80' AGL/658' MSL. Trees 2.4 NM from departure end of runway, 3600' left of centerline, 80' AGL/1262' MSL.

## STOW. MA

### MINUTE MAN AIRFIELD

TAKE-OFF MINIMUMS: **Rwy 21**, 300-1 or std. with a min. climb of 390' per NM to 600. **Rwy 3**, 300-1. **Rwys 12, 30**, NA

DEPARTURE PROCEDURE: **Rwy 21**, climb runway heading to 2000 before proceeding on course.

## TAUNTON, MA

TAUNTON MUNI

TAKE-OFF MINIMUMS: Rwys12,22,300-1.

# WATERVILLE, ME

WATERVILLE ROBERT LAFLEUR TAKE-OFFMINIMUMS: Rwys14,32, 300-1.

# WEST DOVER, VT

# MOUNT SNOW

TAKE-OFF MINIMUMS: Rwy 1, std. with a min. climb of 492' per NM to 6000, or 2200-3 for climb in visual conditions. Rwy 19, std. with a min. climb of 236' per NM to 5000, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: Rwy1, climb via VWD NDB 352° bearing to 6000 before proceeding on course. For climb in visual conditions: Maintain 180 knots or less in climb, cross Mount Snow Airport at or above 4500. Rwy19, climb via VWD NDB 191° bearing to 5000 before proceeding on course. For climb in visual conditions: Maintain 180 knots or less in climb, cross Mount Snow Airport at or above 4500.

NOTE: Rwy 1, brush 200' from departure end of runway, 70' left and right of centerline, 20' AGL/1970' MSL: multiple trees 1200' from departure end of runway, left and right of centerline, 90' AGL/2040' MSL: trees 2813' from departure end of runway, 594' right of centerline, 90' AGL/2156' MSL; trees 2140' from departure end of runway, 326' right of centerline, 90' AGL/2131' MSL; trees 2776' from departure end of runway, 210' right of centerline, 90' AGL/2137' MSL; trees 560' from departure end of runway, 578' right of centerline, 90' AGL/2078' MSL; trees 3351' from departure end of runway, 1056' left of centerline, 90' AGL/2137' MSL. Rwy 19, brush 200' from departure end of runway, 100' left and right of centerline, 20' AGL/1968' MSL, trees 1200' from departure end of runway, left and right of centerline, 90' AGL/2038' MSL.



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# 05300

# TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

# $\Delta$

# WESTERLY, RI

### **WESTERLY STATE**

TAKE-OFF MINIMUMS: **Rwy 25**, 300-1 or std. with a min. climb of 466' per NM to 400. **Rwy 32**, 300-1 or std. with a min. climb of 218' per NM to 300.

DEPARTURE PROCEDURE: All Runways, climb runway heading to 500 before proceeding on course. NOTE: Rwy14, multiple trees from 20 to 1300' from departure end of runway, 10 to 500' left/right of centerline, ranging from 110 to 173' MSL. Rwy 25, multiple trees from 4180 to 6600' from departure end of runway, 10 to 500' left/right of centerline, ranging from 92 to 150' MSL. Water tower 2950' from departure end of runway, 1040' left of centerline, 120' AGL/252' MSL. Rwy 32, multiple trees from 30 to 1750' from departure end of runway, 10 to 500' left/right of centerline, ranging from 91 to 155' MSL.

# WESTFIELD, MA

#### BARNES MUNI

TAKE-OFF MINIMUMS: **Rwy 15**, 300-2 or std. with a min. climb of 260' per NM to 700. **Rwy 33**, 1200-3 or std. with a min. climb of 250' per NM to 1700.

DEPARTURE PROCEDURE: Rwy 2, climb runway heading to 1700 before proceeding on course.

Rwy 15, climb runway heading to 1400 before proceeding on course. Rwy 20, climb runway heading to 2200 before proceeding on course. Rwy 33, climb runway heading to 1500 before proceeding on course.

# WESTOVER ARB/METROPOLITAN, (KCEF)

SPRINGFIELD/CHICOPEE, MA

Rwy 5, 900-3\* Rwy 33, 1400-3\*\* \* Or standard with minimum climb of 250/NM to 900. \*\* Or standard with minimum climb of 320/NM to 1400. RWY 15: 307' tree 1013' from departure endof RWY, 526' left of extended centerline, 294'tree 1268' from departure end of RWY, 619' left of extended centerline, 317' tree 1340' from departure end of RWY, 686' left of extended centerline, 318' tree 1686' from departure end of RWY, 911' left of extended centerline, 305' tree 1911' from departure end of RWY, 832' left of extended centerline, 321' tree 2104' from departure end of RWY. 942' left of extended centerlineline, 329' tree 2959' from departure end of RWY, 1277' left of extended centerline, 334' tree 3236' from departure end of RWY, 1278' left of extended centerline, 343' tree 3515' from departure end of RWY, 1287' left of extended centerline, 310' tree 2421' from departure end of RWY, 1062' left of extended centerline, 323' tree 2695' from departure end of RWY, 369' right of extended centerline, 321' tree 2796' from departure end of RWY, 608' right of extended centerline, 321' tree 2945' from departure end of RWY, 909' right of extended centerline, 335' tree 3567' from departure end of RWY, 1320' left of extended centerline. RWY 23: 296' tree 1191' from departure end of RWY, 726' left of extended centerline; 289' tree 1704' from departure end

of RWY, 202' right of extended centerline; 291' tree

1737' from departure end of RWY, 205' left of extended

# WHITEFIELD, NH

## MOUNT WASHINGTON REGIONAL

TAKE-OFF MINIMUMS: **Rwy 10**, 3300-3 or std. with a min. climb of 390' per NM to 4900. **Rwy 28**, 2700-3 or std. with a min. climb of 330' per NM to 4400.

DEPARTURE PROCEDURE: Rwy10, climb runway heading to 2200, then climbing left turn direct GMA NDB. Cross GMA NDB at or above 5000 before proceeding on course. Rwy28, climb direct GMA NDB, climb in holding pattern (W, right turns, 104° inbound) to 5000 before proceeding on course.

NOTE: Rwy 10, 67' AGL trees 194' from departure end of runway, 494' left of centerline 67' AGL/1130' MSL. Rwy 28, 65' AGL trees 294' from departure end of runway, 517' right of centerline 65' AGL/1096' MSL.

# WILLIMANTIC, CT

### WINDHAM

TAKE-OFF MINIMUMS: Rwy 9, 500-2 or std. with a min. climb of 360' per NM to 800. Rwy 27, 300-2 or std. with a min. climb of 240' per NM to 700. Rwy 36, 400-1 or std. with a min. climb of 360' per NM to 700.

DEPARTURE PROCEDURE: **Rwy18**, climb runway heading to 1000 before turning westbound. **Rwy27**, climb runway heading to 1100 before proceeding on course.

NOTE: Rwy 9, trees 51' from departure end of runway, 387' right of centerline, 60' AGL/309' MSL. Trees 9700' from departure end of runway, 1387' right of centerline, 60' AGL/652' MSL. Rwy 18, trees 354' from departure end of runway, 438' left of centerline, 60' AGL/330' MSL. Trees 3282' from departure end of runway, 181' left of centerline, 60' AGL/412' MSL. Rwy 27, trees 94' from departure end of runway, 314' right of centerline, 60' AGL/307' MSL. Trees 8200' from departure end of runway, 2574' right of centerline, 60' AGL/513' MSL. Rwy 36, trees 527' from departure end of runway, 229' left of centerline, 60' AGL/316' MSL. Trees 6489' from departure end of runway, 2151' left of centerline, 60' AGL/549' MSL.

### WINDSOR LOCKS, CT

# BRADLEY INTL

TAKE-OFF MINIMUMS: **Rwy 15**, 300-1 or std. with a min. climb of 350' per NM to 300. **Rwy 33**, 700-1 or std. with a min. climb of 300' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 1**, climb to 1000 via runway heading before turning westbound.

### WISCASSET, ME

#### WISCASSET

TAKE-OFF MINIMUMS: **Rwy7**, 300-1 or std. with a min. climb of 240' per NM to 600.

# WORCESTER, MA

### WORCESTER REGIONAL

TAKE-OFF MINIMUMS: **Rwy 29**, 300-2 or std. with a min. climb of 250' per NM to 1300. **Rwy 33**, 700-2 or std. with a min. climb of 320' per NM to 2000.

DEPARTURE PROCEDURE: **Rwy 29**, climb runway heading to 1300 before proceeding on course. **Rwy 33**, climb runway heading to 2000 before proceeding on course.



centerline.

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